DOCUMENT RESUME

ED 129 906 TM 005 749

AUTHOR Gauthier, William J., Jr.
TITLE Administrative Concerns in Developing Programs of Applied Performance Testing.
PUB DATE Apr 76
NOTE 20p.; Paper presented at the Annual Meeting of the American Educational Research Association (60th, San Francisco, California, April 19-23, 1976)

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS *Administrative Problems; *Administrator Role; Daily Living Skills; Elementary Secondary Education; *Performance Tests; Program Development; Testing Problems; *Testing Programs; Test Validity
IDENTIFIERS *Applied Performance Testing

ABSTRACT

It is of crucial importance for the administrator to understand the complexity involved in managing a program of applied performance testing (APT). This paper attempts to clarify the potential and problems inherent in such an undertaking. Many citizens feel that public schools should be offering students the opportunities to acquire skills that will be of value in their everyday living. APT offers a tool for examing these concerns. APT is defined as tests designed to measure performance in an actual or simulated setting. In education, performance tests focus on the measurement of performance of tasks significant to the student's life outside the school or to adult life. Topics of this paper include the genesis of APT is education; assumptions on which the validity of APT rest; how will APT modify school processes; potential problems related to APT; developing support for APT; and suggested research. (RC)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED129906

Administrative Concerns in Developing Programs of Applied Performance Testing

A Paper Presented at the Annual Meeting of the American Educational Research Association

San Francisco, California

April 1976

Session 26.19

William J. Gauthier, Jr.

Bucknell University

PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

William J. Gauthier, Jr.

TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE NATIONAL INSTITUTE OF EDUCATION. FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER.

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

(Not to be copied or reproduced without the permission of the author)

TM005 749

Administrative Concerns in Developing

Programs of Applied Performance Testing

Can your students fill out a job application? Can they read and understand an editorial in a newspaper? How many can fill out an income tax form properly? Can they compare two or three different models of a refrigerator and decide which offers them the best quality based on what they can afford to pay? Can they decide how much rent they can afford based on an income of 175 dollars a week? Can they decide which can of peas will give them more for their money? Can they determine how much it would cost them to drive to a city 150 miles away?*

Many citizens feel questions like these are important for students to understand if they are to survive in today's complex world. They also feel that public schools should be offering students the opportunities to acquire skills that will be of value in their everyday living.

Once again, the challenge is offered to those in administration to respond to the demands of the times. As a matter of fact, how well we are able to answer these questions may be more important in the coming years than college board scores or how many students make the honor roll. They may even be more important than the won-loss record of the football team.

Applied Performance Testing offers us a tool for examining these concerns. Applied Performance Testing (APT) is defined as tests designed "... to measure performance in an actual or simulated setting. In education, performance tests focus on the measurement of performance of tasks significant to the student's life outside the school or to adult life."

---

*This presentation reflects an attempt to assimilate material drawn from two papers developed by this author for the Clearinghouse for Applied Performance Testing (see Bibliography).

This is an intriguing statement for us as superintendents, curriculum coordinators, principals, and department chairmen. It is intriguing because it provides a bridge which will help us connect school learning to that real and very complex world outside the classroom. It gives us an opportunity to demonstrate that we really are concerned with what is needed and what is practical. It indicates that we are concerned not only with a select group of students but all that we are charged with educating.

For the first time, we may be able to demonstrate that our students are wiser consumers, that they do know how to make their opinions known to congressmen and other legislators, that they are able to fill out job application forms, that they can read and react to magazine and newspaper articles, that they do have an understanding of certain skills that are unique to their community, that they do have a better understanding of basic health needs, and that, in general, they are better able to cope with adult living.

The Genesis of Applied Performance Testing in Education

Why is APT enjoying such popularity today? As is often the case in educational innovations, the answer may be found in societal forces outside the school rather than in any internal demand from educators themselves.

In the 1960's, the federal government attempted to reduce inequality in education through substantial funding and compensatory programs. As Schneider indicates, "When many of these programs failed to make much difference, reformers shifted their attention from redistribution [of resources] to gaining more control over decision-making in school systems." (p. 3) Thus, during the 1970's there has been a thrust by both citizens and government to control the decision-making process associated with education by forcing schools to produce more information related to student performance. The emphasis on assessment and accountability is

reflected in performance contracting, management by objectives, PPBS and contract learning. Note that these accountability techniques are concerned with output variables rather than input variables involving number of students, qualifications of teachers and number of textbooks. Previously, school evaluations have been mostly concerned with input variables.

Applied Performance Testing is a tool of accountability and as such posesses all of the potential political ramifications of being equated with quality education, survival education, teacher competency and efficient school management. Although it may serve as an output measure for all these concepts, it is identical with none. It is certainly susceptible to political distortion, community resistance, inefficient management, economic constraints and overblown claims of grandeur.

The validity of APT rests on the following assumptions:

1. By indicating specific standards of performance for each student in practical life skills, the overall quality of education will be improved.

2. Specific performance measures will indicate to educators and the public exactly what learnings have taken place.

3. Applied Performance Testing will help make teachers and administrators more accountable for what they do with children.

4. Applied Performance Testing will help to direct public education toward practical kinds of programs oriented to the needs of each individual and each community.

5. Applied Performance Testing will equip each student with the skills necessary to survive in the adult world.

6. Applied Performance Testing will help the school reexamine and more clearly define the goals and objectives of its instructional programs.

7. Applied Performance Testing will lead to greater community involvement in the educational process.

8. Applied Performance Testing will help to restore public confidence in schools.

Although Number 3 above may make some educators feel uncomfortable, the assumptions would appear to be acceptable to most administrators. They also portend a number of significant changes in school operations that must be considered.

How will APT modify school processes?

From a sociological viewpoint, schools exist to fulfill four functions: instruction, socialization, custodialization and certification (Spady, B.). Applied Performance Testing may have an impact in all these areas and in their relationship to one another.

Relative to instruction, certainly APT will bring about changes in curriculum concerning both the content offered and the way it is structured. Material will have to be highly individualized and directed toward task performance related to the needs of each community. Instruction will become less private as teachers are asked to interact with one another and with those citizens in the community who can offer facilities and expertise relative to testing needs. Thus, the teacher may play a less powerful role in determining content, modes of instruction and evaluation. Instruction will be offered at a number of sites both in the school and in the community. Work arrangements will be restructured and roles redefined.

Applied Performance Testing may tie the socializing process of the school closer to the norms, attitudes and values of local communities. This closer relationship will present a philosophic and psychological base on which curriculum content will be structured. The school will be more vulnerable and, by

necessity, more receptive to its immediate environment. For the first time, many citizens who hold positions of low influence in the community may be asked to take an active part in the educational process. For instance, the man who runs the local lawn mower repair business in his garage may be asked to help develop a performance test concerning the tune-up of a lawn mower.

The certification processes now in evidence will be greatly modified. While the Carnegie unit will probably remain as the primary unit of evaluation, specific competency scores and checklists will also be used. Furthermore, students who cannot qualify for the traditional diploma may be issued certificates of competency indicating specific areas in which skills have been exhibited.

School evaluation tasks will have to be modified as follow:

1. Develop and provide on demand equivalency examinations for all required courses whereby full course credit may be given.
2. Develop and provide opportunity for competency in specific skill areas.
3. Develop and administer criterion-based evaluation schemes for each skill area.
4. Credit alternative learning experiences.
5. Modify attendance and time requirements (Schneider, p. 2).

Therefore, in a fully-developed APT model, the school will have to develop equivalency examinations for all specified skill areas as well as alternate forms of each exam and additional diagnostic materials. Students who cannot meet the competencies will have to be given extra help and attention. Credit will be awarded for alternate learning experiences particularly those involving on-the-job training. Also attendance and the 12-year custodial period will be modified--some students may be able to complete all tasks in ten or eleven years whereas

others may have to remain in school for longer periods of time. Marks will not be based only on "attitude, punctuality, attendance, deportment." (Spady, A.) Arrangements will have to be made so that performance indicators will be transferable from one school to another.

Schools will have to become more sophisticated in planning techniques. They will have to be able to react much more quickly to be capable of utilizing new technological developments for educational purposes. The school system will have to be much more adept at searching out and using resources and expertise that exist in society. The school will have to develop the capability to expose learners to a wide variety of realistic learning experiences.

Potential Problems related to Applied Performance Testing

Applied Performance Testing is fraught with potential problems as well as promises. While many of the nine problems delineated below are germane to all innovations, a few are unique to Applied Performance Testing.

1. The Political-Mandate Problem. As previously mentioned, APT is attractive to politicians and interest groups who aspouse accountability in education. Often these people attempt to have legislation enacted at state level which will mandate specific criteria to which schools must conform. Such attempts are well-intentioned but naive. Communities are quite different and so are schools. To establish minimum standards to which all students in a state must conform is both unfair and unenforceable. It is unlikely that many students in some inner-city schools or those from poor, rural areas will be able to perform the competencies that the majority of students in affluent, suburban communities will be able to exhibit.

Conversely, if state standards are predicated on criteria oriented toward performances that underprivileged youngsters in poor school districts can exhibit,

the standards would be so minimal they will be meaningless. It is difficult enough for any one school district to develop standards that will accommodate a wide range of student abilities. Furthermore, if APT is mandated but specific assessment techniques and methods of evaluation are left to local districts, the "fudge factor" so prevalent in industrial quality control undertakings will become rampant. That is, if forced to do so, people will present pretty much what the evaluators want to see particularly if they are allowed to assess outcomes in their own ways. Applied Performance Testing has a much greater chance of accounting for some of the school's output if it is voluntarily selected, designed, implemented and assessed at the local level. Yet, it is becoming quite apparent that if educators do not develop better evidence of student output, the demand for assessment will come from the public and often through legislative channels.

2. The Overreaction Problem. Educational systems are often slow to respond to needs and stress. Then they overreact, overcompensate, and implement poorly and fail. The administrator must be wary of overreacting to pressures to implement an APT program. Oftentimes nothing is done until social, political and economic forces become so great that the system is forced to react. As Anderson has indicated, this implementation is attempted with a lack of resources, a short time frame, little staff involvement in planning, an inadequate record-keeping or management information system, no planning model, little technical development and weak assessment techniques. (p. 4)

3. The Content Problem. Applied Performance Testing is not applicable to all content in the curriculum. It is much more relevant for psychomotor learnings and those in the lower level of the cognitive realm. It is difficult to devise performance tests that deal with analysis, synthesis and transfer, although some attempts are being made to do this. (See Nickse) Furthermore, as yet there

is little understanding of how APT may reflect development in the affective domain. Therefore, it should be used in those areas where it works best. Certainly we must strive to develop performance tests in the higher levels of cognitive learning and perhaps even in the affective area. However, one must be cautious and not oversell APT's potential with hollow promises that cannot be fulfilled.

4. The Grade Level Problem. Simply stated, at what age or grade level should children be measured on which competencies? Obviously, it is important for a five-year-old to know how to cross the street and how to interpret basic signs. It may even be sensible to have twelve-year-olds in certain rural areas be able to drive a tractor. However, is requiring an eighth-grader to fill out an income tax form a valid competency? Furthermore, if it is indicated in his record that he was able to do this as an eight-grader, what does this mean four years later when he graduates from high school? Even if he can remember how to do it, the form has probably changed during those years. Thus, it would appear that the majority of competencies oriented toward adult life should be performed in the last two to three years of high school. Other competencies related to the immediate life needs of younger children should be taught as they become appropriate.

5. The APT equals Quality Education Problem. Applied Performance Testing can be an important output indicator for educational systems. However, it does not reflect performance in many learning areas. In fact, it has been called, "A twig on the branch of the tree of education." Perhaps this is too much of a reverse hyperbole, yet it should help the administrator keep APT in its proper scope.

6. The Can-do, Will-do Problem. If a student can demonstrate a particular competency--for instance, writing a letter to his congressman or show how to use a voting-machine--does this mean he necessarily will do it in the future? Without long-range assessment studies, which have not been possible at this time, this

question is impossible to answer. It represents an excellent caution concerning the potential neglect of attitudes and values that the thrust toward basic education brings. If we develop only competencies but not the necessary attitudes and values that encourage the proper use of these competencies, we have done little to improve the quality of life in our communities.

7. The Economic Resource Problem. In this time of tight budgets and limited resources, APT may be an expensive undertaking. A great deal of expertise is needed to develop a systemwide model. Staff retraining is required. It is expensive to develop alternate forms of individualized tests that often require one scorer for each individual or small group of individuals. Often alternate sites outside the school are needed, and transportation must be made available. The writing of objectives, purchase of equipment and development of a fairly complex record-keeping system are necessary. It is much better to start with a small pilot model that can be adequately supported and built on incrementally than to attempt implementation of a grandiose undertaking that has little economic support.

8. The Teacher Involvement Problem. The teaching staff can offer either the greatest help or present the greatest barrier to successful implementation of any innovation. An application of Gross's statements to APT indicates that the following concerns must be attended to. (p. 149) Teachers must clearly understand the new role requirements involved in innovations. It appears that APT will force teachers to become more oriented toward the communities in which they teach and will lower the privacy of the teaching act. This may present a severe threat to some teachers who are accustomed to being lord and master of thier own classroom domains.

Staff capabilities to deal with the innovation must be developed. This may be one of the major problems for the administrator in implementing APT. An

important competency that needs attention relates to teachers' understanding of test theory and development. Not many teachers have an adequate grasp of concepts related to classical norm-referenced testing theory. Only a few have some understanding of criterion referenced and mastery test construction. Applied Performance Testing draws from both areas of testing theory. Therefore, retraining of teachers to enable them to become at least knowledgeable consumers and, hopefully, test developers, would seem to be a high priority consideration for administrators considering adoption of APT.

A third problem cited by staff members as a major reason for innovational failure relates to the availability of instructional materials and equipment. At present, APT resource centers are beginning to generate support and help in this area; some organizations have been hard at work and have produced materials aimed at testing specific competencies. At the present time, NWREL, HUMRRO, ETS and the external high school diploma program in Syracuse, NY, can supply specific suggestions and materials that may serve as useful exemplars.

9. The Administrative Support Problem. A final problem area related to proper administrative arrangements and support. Time and time again, lack of a proper management support system causes innovations to flounder and then fragment as teachers cannot find the direction and resources they need. Their motivation is lowered, and those who were advocates now become adversaries. The publication, An Administrator's Handbook on Applied Performance Testing, addresses itself to this concern.

Once the administrator is aware of the potential problems described above, he can begin to develop strategies for dealing with them. These strategies may be subsumed under three general categorical areas related to developing support, organizing for action and seeking resources.

Developing Support for APT

The success of any APT testing program will be heavily dependent on the ability of administrators to develop commitment and provide involvement on the part of staff, community, and teachers. If APT is mandated from above without considering the needs and ideas of those involved in implementing it at the operational level, the chances for its long-term success will be greatly diminished. People support undertakings that they believe in, and this validation is primarily a result of allowing staff members and citizens to determine major policy and the opportunity to participate in specific functional decisions. It is true that most people will do what they are ordered to do but often in a mechanical, perfunctory way that leads only to performance that is minimally acceptable.

Thus, from the beginning, it is necessary that the administrators involve people who display interest and a willingness to become involved. All teachers might be exposed to an overview of APT in a one- or two-day workshop. Then those who feel it has possibilities for their discipline area might receive further information and training.

Public interest might be elicited through newspaper articles, presentations to civic organizations, P.T.A. meetings, neighborhood coffees, and personal contacts. However, many of these contacts should be established with citizens who are usually not involved in school-community undertakings. This will require initiative and imagination on the part of the administrator, who will have to visit actual work locations and speak to many blue-collar workers at union meetings and socials. This may be a new experience for some who are used to dealing only with the more prominent citizens in the community.

One of the major roles of the administrator will be to develop relationships between his teaching staff and the community. He will have to remember that

both groups will be quite anxious in the beginning about sharing their ideas with one another. It will be best to start with a small group of the most interested citizens and teachers.

The worst mistake might be to undertake APT on a large scale before it has been carried out as a pilot project. This pilot cycle will allow those involved to make suggestions and deal with problems at a manageable level. It will also provide an estimation of just what resources might be needed for expansion. It is far better to build incrementally on a small project than attempt to implement a large-scale testing program without proper resources, training, and knowledge. These factors, rather than the validity of the concept, often determine the ultimate success or failure of educational undertakings.

Too often, the following comments made by staff members when programs are in trouble reflect a failure to consider the points made above:

"We really didn't have any choice. The superintendent and principal had already decided we were going to do it."

"It seemed like a good idea when we had the workshop, but we really didn't understand how to make it work. We just didn't have enough training."

"A lot of the teachers don't really like it, and so they don't support it when they talk with parents and citizens."

"It's a good idea, but you can't do it unless you have the equipment, materials, and help you need to make it work."

The following summation emphasizes how administrators can avoid the pitfalls that generate comments like those above. Expose people to APT; plant the seeds for growth. Make the program <u>theirs</u>. Allow those who exhibit a high interest to be involved, and let them develop not only specific, operational techniques but also general policies and guidelines. Start small; get through one cycle;

reexamine and build incrementally on what is good. Be consistently receptive to all feedback--even that which is painful. Nurture, develop, and provide opportunities for citizens and teachers to work together. Be a catylist, and stimulate action. Provide opportunities for those involved to meet and exchange ideas. Remember, support is directly associated with ownership. People will support and defend that which they have built.

Suggested Research

What do the preceding comments suggest regarding needed research relative to administrative concerns as they relate to Applied Performance Testing programs? Since it is this author's opinion that the success or failure of such programs will result from both the univariate and combined effects of a number of variables alluded to in this paper, an examination of these factors will be of eminent importance. Figure 1 attempts to depict 15 possible correlates. Obviously, these concepts are quite fuzzy. They will have to be operationalized if they are to generate quantifiable data--a task of no small magnitude. It is then with a great deal of caution that I offer the following tentative hypotheses:

1. The higher the degree of administrative commitment the greater the probability of perceived* and actual* success of an APT program.

2. The higher the degree of administrative understanding the greater the probability of perceived and actual success of an APT program.

3. The higher the degree of staff commitment the greater the probability of perceived and actual success of an APT program.

4. The higher the degree of staff understanding the greater the probability of perceived and actual success of an APT program.

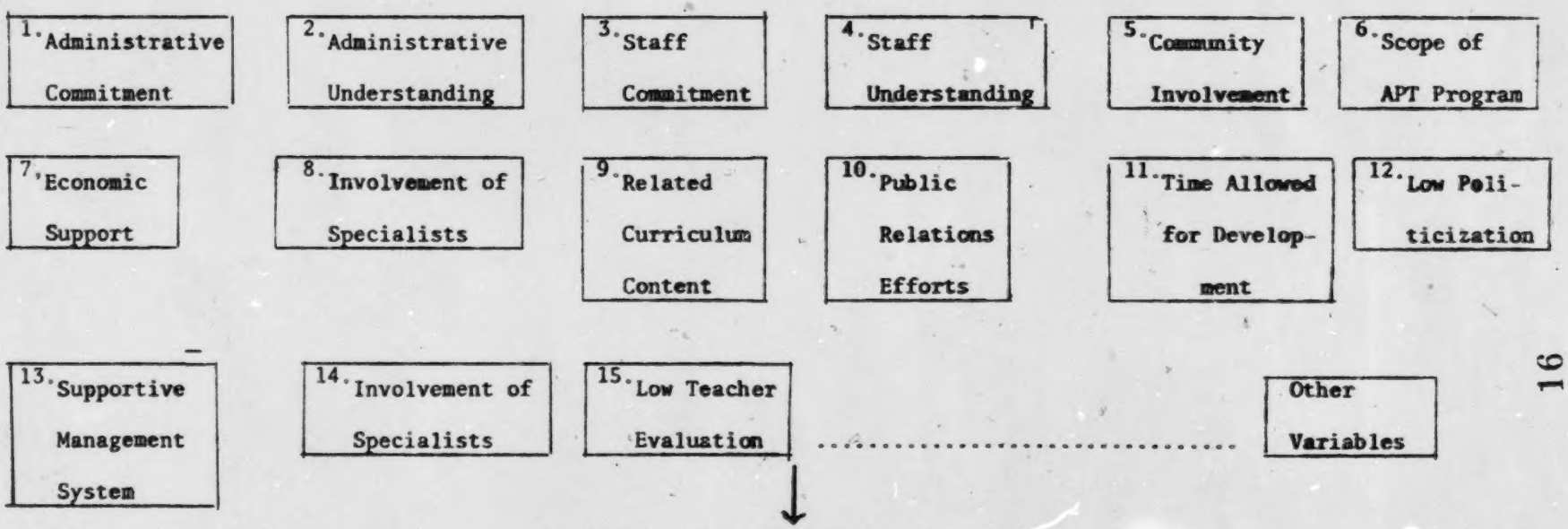
---

*"Perceived" success will be measured by soliting the opinions of administrators, teachers, students and citizens. "Actual" success will be measured by assessing student performance.

Figure 1

Main and Interactive Variables Influencing the "Perceived" and "Actual" Successful Implementation of APT Programs

Possible Independent Variables



Possible Dependent Variables

Perceived Success of APT	Actual Success of APT
(Administration, Staff, Students, Citizens)	(Student Performance)

NOTES: Both short-term and longitudinal studies will be needed.

Both path analysis and multiple regression might serve as appropriate statistical techniques.

5. The greater the degree of community involvement the greater the probability of perceived and actual success of an APT program.

6. The smaller the scope of the program during the first cycle of implementation the greater the probability of perceived and actual success of an APT program.

7. The greater the economic support the greater the probability of perceived and actual success of an APT program.

8. The greater the involvement of specialists from curriculum, management and measurement the greater the probability of perceived and actual success of an APT program.

9. The greater the relevance of curriculum content the greater probability of perceived and actual success of an APT program.

10. The more adequate the effort to keep the public informed the greater the probability of perceived and actual success of an APT program.

11. The more adequate the time for development the greater the probability of perceived and actual success of an APT program.

12. The lower the influence of political mandate (i.e., from the state level) the greater probability of perceived and actual success of an APT program.

13. The higher the involvement of specialists the greater the probability of perceived and actual success of an APT program.

14. The more adequate the supportive management system the greater the probability of perceived and actual success of an APT program.

15. The lower the emphasis on the use of APT as a teacher accountability tool the greater the probability of perceived and actual success of an APT program.

Of course, by using multiple regression techniques and path analysis, any combination of the above variables might be considered. I am sure that others could be

added as construct validity for inclusion is developed by examining programs in operation. What is of crucial importance is for the administrator to understand the complexity involved in managing an APT program. Hopefully, this paper has helped to clarify the potential and problems inherent in such an undertaking.

Sources

Anderson, E. N. "Coping with Oregon's New Competency Based Education Requirements - View from a Practitioner." Portland, Oregon: Metropolitan Administrative Service Center. (Undated Mimeo)

Boyd, J., & Shinberg, B. Handbook of Performance Testing: A Practical Guide for Test Makers. Princeton, New Jersey: Educational Testing Service, 1971.

"Exhibit A." Oregon State Board of Education. Minimum Standards for Public Schools. Portland, Oregon: State Department of Education, 1974.

Gauthier, W. "An Administrator's Handbook on Applied Performance Testing." Portland, Oregon: Northwest Regional Laboratory.-A

Gauthier, W. "An Introduction to Applied Performance Testing for School Administrators." Portland, Oregon: Northwest Regional Laboratory.-B

Gross, N., Giacquinta, J. B., & Bernstein, M. Implementing Organizational Innovations: A Sociological Analysis of Planned Educational Change. New York, N. Y.: Basic Books, Inc., 1971.

Hathaway, W. "Analysis of Issues Relating to Senate Bills 561 and 562." Portland, Oregon: Portland Public Schools. (Mimeo-Undated)

Hathaway, W. "Competency Based Education in an Oregon School District." Portland, Oregon: Portland Public Schools. Paper presented at Annual Meeting of AERA, April 1975. (Mimeo)

Hathaway, W. "A Statewide Program of Support for the Development of Competency Based Education." Portland, Oregon: Portland Public Schools. Paper presented at Annual Meeting of AERA, April 1975. (Mimeo)

Nickse, R. S. Development of a Performance Assessment System for the Central New York External High School Diploma Program. Syracuse, New York: Regional Learning Service of Central New York, February 1975. (Mimeo)

Olson, T. "Coping with the Instructional Dimensions of Competency-Based Graduation Requirements." Portland, Oregon: Northwest Regional Educational Laboratory. Paper presented at Annual Meeting of AERA, April 1975. (Mimeo)

Olson, T. "Graduation Requirements as a Vehicle for Change." Portland, Oregon: Northwest Regional Educational Laboratory. Paper presented at Annual Meeting of AERA, April 1975. (Mimeo)

Oshborn, W. Developing Performance Tests for Training Evaluation. Alexandria, Virginia: Human Resources Research Organization, February 1973.

Schneider, A. L., & Pierce, L. "Policy Analysis of Oregon's Competency Based Education Program: A Prospectus for the First Year of Research." Eugene, Oregon: Oregon Research Institute. (Undated Mimeo)

Schneider, E. W. Course Modularization Applied: The Interface System and Its Implications for Sequence Control and Data Analysis. Alexandria, Virginia: Human Resources Research Organization, 1973.

Shepard, L. "Reporting the Results of Statewide Assessment." Fort Collins, Colorado: University of Colorado. (Undated Mimeo)

Spady, W. G. "Critical Sociological Dimensions in Competency-Based Graduation Requirements." Washington, DC: National Institute of Education. (Undated Mimeo)-A

Spady, W. G. "Research on Oregon's Competency-Based System of High School Graduation Requirements." Washington, DC: National Institute of Education. (Undated Mimeo)-B

Sumida, J. "Guidelines for the Evaluation of Applied Performance Test Materials and Procedures." Portland, Oregon: Northwest Regional Educational Laboratory. (Undated Mimeo)